# DWR Climate News Digest

# February 2018

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The information provided in the DWR Climate News Digest is a selected compilation of recent popular news articles, publications, and other information relevant to climate change and water management, and is intended to provide educational and thought-provoking material for water managers and water users.

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# **TOPICS**

## Reports

#### Safeguarding California Plan: 2018 Update

[CA Natural Resources Agency – January 30, 2018]

Released at the end of January, this Update lays out a roadmap for everything state agencies are doing and will do to protect communities, infrastructure, services, and the natural environment from climate change impacts.

# Agriculture/Food Production

<u>How A Skeptical Rancher in Rural California Embraced Green-Friendly Farming — With Help from A Popular Outdoors Brand</u>

[Capital Public Radio – February 1, 2018]

What bison in South Dakota can teach us about fighting climate change

[Vox – February 2, 2018]

#### How Climate Change Could Impact Your Wine and Beer

[KQED – February 3, 2018]

"KQED reporters told us about how drought could spell doom for beer, but maybe not for wine. Let's go outside and experience some nature. And we'll take our drinks with us."

### California agriculture faces serious threats from climate change, study finds

[Desert Sun – February 27, 2018]

"In a new study, University of California researchers said those effects range from lower crop yields to warming that will render parts of the state unsuitable for the crops that are grown there today."

# General Water Management

## 'Ridiculously Resilient Ridge', Climate Change and The Future of California's Water

[Water Education Foundation – February 9, 2018]

"In a recent interview with Western Water, [Daniel Swain] talked about the Ridiculously Resilient Ridge, its potential long-term impact on California weather, and what may lie ahead for the state's water supply."

# Sea-Level Rise and other Ocean Impacts

"It's a big deal": Melting ice sheets are accelerating sea level rise

[CBS News - February 13, 2018]

## Seas to rise about a meter even if climate goals are met - study

[Reuters – February 20, 2018]

"The report also found that every five years of delay beyond 2020 in peaking global emissions would mean an extra 20 centimeters (8 inches) of sea level rise by 2300."

#### Extreme Weather Events

#### Climate change will accelerate extreme weather events in the coming years

[Public Radio International – February 18,2018]

"While global warming is creating more powerful storms and record-breaking, drought-driven wildfires, it would be a mistake to view these events as the "new normal," they say. The planet has not reached a new climate stability, so the years ahead could be quite a lot worse."

#### Welcome to the Age of Climate Migration

[Rolling Stone Magazine – February 25, 2018]

"Extreme weather due to climate change displaced more than a million people from their homes last year. It could soon reshape the nation."

# **Human Health Impacts**

#### The Arctic is full of toxic mercury, and climate change is going to release it

[Washington Post – February 5, 2018]

"As permafrost thaws in the future, some portion of this mercury will get released into the environment, with unknown impact to people and our food supplies."

#### Climate change revealed this U.S. military secret

[Popular Science – February 14, 2018]

"Fifty years ago, the Army probably didn't know about climate change. But now, thanks to global warming, the ice has begun to melt, leaking chemicals the Army thought would stay frozen in perpetuity."

# Tribal Impacts & Traditional Ecological Knowledge

# A shrinking supply of abalone shells affects coastal tribes

[High Country News – February 26, 2018]

"Overfishing and climate change is driving the abalone perilously close to extinction..."

# Wildlife and Ecosystem Impacts

## Is an iconic bird of California heading for its last dance?

[Sacramento Bee – February 5, 2018]

#### A Focus on Resilience After Southern California Fires

[Water Deeply – February 8, 2018]

"As Southern California rebuilds, will it be back to business as usual, or will a climate change-induced 'new normal' help spur efforts at greater resilience?"

West Coast Wetlands Could Nearly Disappear in 100 Years

[Scientific American – February 22, 2018]

#### Climate value of Earth's intact forests

[Science Direct – February 26, 2018]

"New research demonstrates the extraordinary value of Earth's remaining intact forests for addressing climate change and protecting wildlife, critical watersheds, indigenous cultures, and human health."

# **Greenhouse Gas Mitigation**

#### The new Sunshine State

[Financial Times – February 12, 2018]

"California is turning to solar power and innovative ways of using energy to fight the droughts, floods and fires which climate change worsens."

# <u>U.S., Canadian provinces launch first cap-and-trade auction to battle climate change</u> [Reuters – February 21, 2018]

# <u>California Decries Federal Climate Change Reversal, Cap-And-Trade Yields Big Return</u>

[Capital Public Radio, February 28, 2018]

"Officials from the California Environmental Protection Agency, Air Resources Board, state utilities commission, and Natural Resources Agency testified...to oppose repeal of the Clean Power Plan."

# Climate Change Modeling

## What the hell is a climate model—and why does it matter?

[MIT Technology Review – February 8, 2018]

"The science of climate modeling is becoming increasingly powerful as improvements in technology, techniques, and data sharing allow researchers to set up novel experiments or simply run many more of them."

# Climate Change Adaptation

Adapting to Climate Change: Pricing Right, Taxing Smart, and Acting Now

[International Monetary Fund – February 1, 2018]

## <u>California military bases report damage from extreme climate, we</u>ather events

[Southern California Public Radio – February 1, 2018]

"The Department of Defense has been proceeding with climate change research and preparing for its possible effects, despite ongoing political battles over the issue."

## We Can't Engineer Our Way Out of Climate Change

[Bloomberg – February 21, 2018]

# International Planning

<u>Trump Is Telling Foreign Leaders That the U.S. May Rejoin the Paris Climate Agreement, Ex-Aide Says</u>

[TIME – February 23, 2018]

"Trump might shift gears when the politics behind it change and has suggested to foreign counterparts that he would be open to keeping the U.S. in the agreement under the right terms."

## Norway's Underground Doomsday Seed Vault Is Under Threat from Climate Change

[TIME - February 27, 2018]

"Norway plans to spend roughly \$12.7 million to upgrade its "doomsday" seed vault, the world's largest repository built to protect crops and plants from natural and man-made disasters."

# Communicating Climate Change

# A Trip to a Museum for Convincing Americans About Climate Change

[The Atlantic – February 8, 2018]

"An exhibition in Manhattan is the first step in a grand attempt to change the national conversation around global warming."

## How Sea Level Rise Simulations Can Improve Climate Adaptation

[University of Pennsylvania – February 15, 2018]

"[T]his study shows that engaged learning and experience provide an effective way to communicate the risk of sea level rise and overcome psychological barriers to serious climate adaptation efforts."

#### Scientists Can Connect with Skeptics over Shared Risks of Climate Change

[American Association for the Advancement of Science – February 18, 2018] "Finding ways to connect with others - bonding over a shared love of gardening or a shared concern for national security, for example - can help scientists talk about climate change..."

# **BLOGS/Commentary**

How one state bridged the cultural divide on climate change to prepare for a stormier future [San Francisco Chronicle (The Conversation guest commentary) – February 6, 2018]

<u>Safeguarding California: Practical Advice for Oceans and Coasts to Confront Climate Change</u>
[Ocean Conservancy: Ocean Currents Blog – February 10, 2018]

#### Beware the Second Derivative

[Forbes – February 15, 2018]

"The data don't lie. Sea levels are rising, and the rate at which they are doing so is increasing...
The mathematics is there; let's hope there's a will to do something about it."

## Six research priorities for cities and climate change

[Nature – February 27, 2018]

# Additional Items of Interest

#### A Change of Climate: Part 2

[American Geophysical Union: The Plainspoken Scientist – January 31, 2018] While from the end of January, this posting is a series on a collection of the poems about climate change featured in <u>A Change of Climate</u>.

## What Climate Change Means for Glaciers, Storms, Fires, Clouds, and More

[NASA Earth Observatory – February 13, 2018]

"Several images from the Earth Observatory were used in the Fourth National Climate Assessment. Since the authors did not give much background about the images, here is a quick rundown of how they were created and how they fit with some of the key points on our changing climate."

<u>UC partners with leading research universities to form international coalition for accelerating local climate action</u>

[UC Office of the President – February 6, 2018]

The Amazing Ways We Can Use AI to Tackle Climate Change

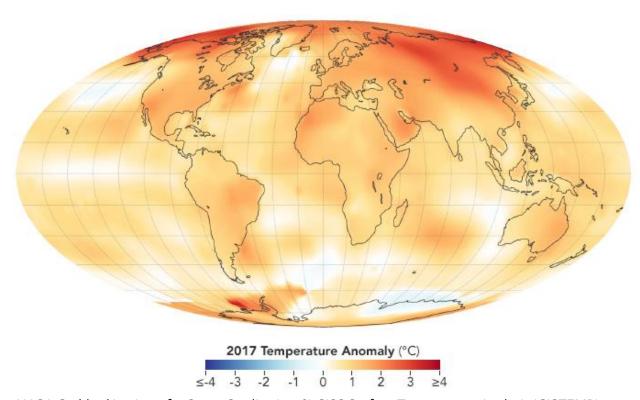
[Forbes – February 21, 2018]

# **Images to Ponder**

Earth's global surface temperatures in 2017 ranked as the second warmest since 1880, according to an analysis by scientists at NASA's Goddard Institute for Space Studies (GISS).

Continuing the planet's long-term warming trend, globally averaged temperatures in 2017 were 0.90 degrees Celsius (1.62 degrees Fahrenheit) warmer than the 1951 to 1980 mean.

That is second only to global temperatures in 2016.



NASA Goddard Institute for Space Studies (2018) GISS Surface Temperature Analysis (GISTEMP).

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